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EXAMINER	
VU, TUAN A	

ART UNIT	PAPER NUMBER
2193	

NOTIFICATION DATE	DELIVERY MODE
03/25/2011	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No.	Applicant(s)	
	10/563,568	SAUERMANN ET AL.	
	Examiner	**Art Unit**	
	TUAN A. VU	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 February 2011*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-2, 7, 10-15, 17-18, 23-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,7,10,17,18,23 and 24* is/are rejected.

7)☒ Claim(s) *11-15* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the Applicant's response filed 2/24/2011.

As indicated in Applicant's response, claims 1-2, 7, 10-15, 17-18, 23 have been amended, and claim 24 added. Only claims 1-2, 7, 10-15, 17-18, 23-24 are pending in the office action.

Claim Objections

2. Claim 17 recites 'including … value of the second dimension define an intersection, the intersection being …' (lines 16-17), the 'define an intersection' being a improper segment of sentence with no grammatical relation to the rest of the paragraph. The "define an intersection" will be ignored.

3. Claim 17 recites "the interval of the first dimension and the interval of the second dimension including the corresponding current parameter value of the first dimension and the interval of the second dimension including the corresponding current parameter value of the second dimension define an intersection" appears to be a clause having a verb ("define") without a proper conjunction of subordination needed to link a subordinate clause to the main clause; and further cannot be semantically deciphered absent any corresponding description in the entire Disclosure. Absent proper disclosure support, the above "interval" of first dimension and interval of second dimension will be treated as the equally recited "interval" (of first dimension, of second dimension) limitation as understood in claim 1.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 17-18, 23 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The language in claim 17 recited as "the interval of the first dimension and the interval of the second dimension including the corresponding current parameter value of the first dimension and the interval of the second dimension including the corresponding current parameter value of the second dimension define an intersection" is not found as having clear description in the entire Disclosure. A set of conditions and number of hits are depicted in page 32 as intersection set of conditions(e.g. C1, C2 AND … Cn) but no teaching is provided to clarify how each interval of first dimension (with current value) and/or interval of second dimension(with current value) is involved in any intersection of conditions. One would not be able to make use of the above language regarding current first dimension parameter value and current second dimension parameter value to give weight to the "interception" concept as claimed. The above lack of proper Description will be treated and interpreted as the "interval" recited in claim 1.

Claims 18, 23 fail to cure to the lack of enabling support, and one would have to resort to undue experimentations to carry out the invention of claims 17-18, 23, and these claims are rejected for failing to provide the proper Disclosure requirement

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-2, 7, 10, 17-18, 23-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ming-Chuan Wu, "Encoded Bitmap Indexes and Their Use for Data Warehouse Optimization", D17, Darmstadt Dissertation, January 2001, (herein Wu_D17).

As per claim 1, Wu_D17 discloses a method comprising:

calculating a first threshold value for a first parameter and a second threshold value for a second parameter (Fig. 4.17, 4.18 (a), (b), (c) pg. 115; Appendix C.2, Fig. C.1 – Note: partitioning scenario with respective calculation of s, r over t and readjusting of an alternative value of θ around which a response/processing time -- r or s - range is defined based on alternatives (a) (b) or (c) **reads on** first threshold for a first parameter, then second threshold for a second parameter, each threshold according to a redefined range and grouping alternative), the first parameter and the second parameter influencing the performance of a software application (query processing, performance – sec 4.1, pg. 85; Fig. 4.1, 4.2, Fig. 86-87;) with regards to a specific task (Selections, Group bys, Aggregations Order bys – pg.86 top; sec 4.3.1 pg. 105-120; Aggregation, Algorithm 8 pg. 112; limited buffer $i \leq w$, Algorithm 7 pg. 111),

the first threshold value separating a first value range of the first parameter into two intervals of a first dimension (Algorithm 9: s, t, r, θ – pg. 115-116 Note: included in inequality expression to represent a partitioning requirement reads on two intervals of first dimension - e.g. estimate cost r, s, t) and

the second threshold value separating a second value range of the second parameter into at least two intervals of a second dimension (see Appendix C.2 – Note: any alternative other than

a first alternative for recalculating response time based on a readjusted θ and the evaluation to assess a range – expressions with inequality operators - defined for that θ threshold **reads on** second threshold separating second parameter value into two intervals - e.g. see $0<s/t<\theta$; $\theta \leq s/t \leq 1-\theta$; $1-\theta <s/t <1$ - C.2 pg. 201-202 - in a second dimension);

comparing the first threshold value to a corresponding current value of the first parameter and the second threshold value to a corresponding current value of the second parameter (if is set too high – pg. 202) selecting, using one or more processors, an algorithm from a plurality of algorithms for performing the task in accordance with the result of the comparing step (see alternatives - Appendix C.2 pg. 201-202; e.g. Consider C.1(a), Consider C.1(b))

Wu_D17 does not explicitly disclose selecting, in accordance with the comparing step, the selected algorithm assigned to an intersection of the interval of the first dimension that includes the corresponding current parameter value of the first dimension and the interval of the second dimension that includes the corresponding current parameter value of the second dimension.

Wu_D17 discloses modifying ranges into subset to improve response time (see pg. 117-119) via picky-backing of subrange representing by smaller bitmap coverages, and dividing a having a fixed ends into 3 subranges (see $0<s/t<\theta$; $\theta \leq s/t \leq 1-\theta$; $1-\theta <s/t <1$ - C.2 pg. 201-202); hence the overlapping effect of subdividing range with a $\leq$ operator teaches first dimension (or range/interval) of a current parameter would intersect dimension of the second parameter of a second dimension(or range/interval). According to this overlapping of range related to a task (selections, group bys), Wu_D17 further discloses improvement in partition selection (i.e. indexing and bounding) with employing pipelining of overlapping operations to overcome the

overhead cost when analyzing performance of tasks (selections, group bys) for improving response time (e.g. reduces the total processing time … overlapping – sec 2.1.2 pg. 21); hence the concept of overlapping interval of index in group/partition selection

Based on Wu_D17's selecting of Aggregation alternative by which sub-grouping are used to improve response time and sub-dividing of for finding a better partitioning response as set forth above using a overlapping operator, and the overhead cost in performance due to box bounding as set forth above in the overlapped pipelining approach, it would have been obvious for one of ordinary skill in the art to implement Wu_D17's selection of best alternative so that the subdivision of requirement or regrouping of dimension set to that sub-divided set of range intersect with each other in terms that intersection intervals including portion of the first dimension containing the corresponding current parameter value of the first dimension and portion of the second dimension containing the corresponding current parameter value of the second dimension, because overlapping regions or range – as indicated in Wu_D17's overlapping approach - would cover for all the partitions included in a larger range whose upper or lower bound are to be excluded as shown in Wu_D17's readjusting of (see C.2 pg. 201-202) such that all data or parameter values (response time, return of group hits – see pg. 117-119) to be considered within the large range (group-set, dimension table/set) would be all inclusive in the final account and ensuing evaluation of result leading to choosing the best algorithm (e.g. bitmap indexed dynamic Aggregation scenario – see sec 2.1.2 pg. 21) as to improve overhead cost in support of best selection of partition/group as endeavored in Wu_D17's pipelining of operations via overlapping of index intervals from above.

As per claim 2, Wu_D17 discloses:

measuring the performance of the selected algorithm (Algorithm 9: s, t, r, θ – pg. 115-116);

checking whether the selected algorithm delivers the better performance within the plurality of algorithms measured performance complies with the at least one threshold value (by virtue of the rationale in claim 1 and based on see sec 4.3.2 pg. 115; C.2 pg. 201-202); and recalculating at least the first threshold value if a further algorithm of the plurality of algorithms performs better in the intersection including the current parameter values of the first dimension and the second dimension (alternative 2 is in fact a better choice – pg. 202), the recalculation performed so that the further algorithm gets automatically selected in the intersection (see $0< s/t< \theta$; $\theta \leq s/t \leq 1-\theta$; $1-\theta < s/t < 1$ - C.2 pg. 201-202 – Note: three partitions for improving upon scenario $s/t < \theta$ and $s/t > \theta$ reads on intersection as compromise of the two ranges defined in C1.(a) and C1.(b) defined by the at least one recalculated threshold value, in case of non compliance.

As per claim 7, Wu_D17 disclose wherein each value (bounds of a range- sec 3.5 pg. 77-79: range selection, RangeEval Opt Appendix C.1) corresponds to a break-even point (sec 3.5.3 pg. 79-80) where two neighbouring algorithms have the same performance with respect to the corresponding dimension (Note: optimizing global time for both discrete and continuous type of selection algorithms characterizing a break-even point reads on have the same performance with respect to the corresponding dimension or range – see Fig. 3.17, 3.18 pg. 80-81).

As per claim 10, Wu_D17 discloses method of claim 1, further comprising:

determining a number of hits (result set of a selection – pg. 33; Fig. 2.6,2.7 pg. 37; result set – pg. 69-70, 91-92, 131-132, 135-136; Fig. 4.3, pg. 89; Fig. 4.12 pg. 107; page hits – pg. 125-

126) in response to a Boolean expression (sec 4.1, 4.2.2, 4.3 pg. 86-116 – Note: AND, OR operators using in relational operations and queries reads on boolean expression – see Appendix F, pg. 213);

comparing the number of hits (see result set - from above) with the first threshold value of the first dimension (A ≤ 864 – sec 4.2.1 – pg. 95; A op v – Algorithm 4 - pg. 97; significance – pg. 115 – Note: comparing or upper bound with result set or hits via a scenario applied to a selected range – see RangeEval-Opt, Appendix C, pg. 201-202; sec 3.5, pg 76; sec 4.2.2 pg. 96-97 - or bitmap indexing range scenario/algorithm reads on comparing hits with associated with one dimension).

Wu_D17 does not explicitly disclose comparing the complexity of the Boolean expression with a second threshold value of the second dimension

Wu_D17 discloses complexity of a boolean expression (Boolean expression – pg. 52-53, 56, 185; Appendix F) in terms of analyzing result from a range selection via indexing approach and responding to the algebraic constraint of the query having boolean operators (complexity – pg. 35, 62, 77, 96-97, 102), hence has disclosed complexity of the Boolean expression, and this is indicative of applying analysis of Boolean expression or query tasks related time complexity in evaluating or bitmap indexing alternatives with result set of running a range (see Appendix C pg. 201-202; sec 3.5, pg 76; sec 4.2.2 pg. 96-97). Implementing a goal as to seek a best algorithmic alternative or grouping algorithm, Wu_D17 teaches iterative approach for improving a range selection via modifying restrictions or inequalities possible definitions surrounding a best θ value, via evaluating result and response time measurements related to scenarios driven by a range. Based on the second dimension surrounding alternatives to improve a interval definition

with respect to response time as set forth in claim 1 (see Appendix C.2 – Note: any alternative other than a first alternative for recalculating response time based on a readjusted θ and the evaluation to assess a range – expressions with inequality operators - defined for that θ threshold **reads on** second threshold separating second parameter value into two intervals - e.g. see $0<s/t< \theta$; $\theta \leq s/t \leq 1-\theta$; $1-\theta <s/t <1$ - C.2 pg. 201-202 - in a second dimension) Wu_D17 has disclosed readjusting of upper bounds, which is indicative of readjusting range via comparing the complexity of the Boolean expression with a further value of a second dimension.

Hence it would have been obvious for one skill in the art at the time the invention was made to implement the adjusting of in Wu_D17 so that complexity analysis and related result set (i.e. hits related to a range selection) related to performance (response time collected from the scenario being run) comprise comparing the complexity of the Boolean expression (Boolean algebraic construct for a Aggregation, Selection or Group bys – see sec 4.1, pg. 86) with a further value of a second dimension (evaluating a in view of improving the upper limit via another range selection) because this would yield improved result set and the ensuing global performance <u>as set forth in claim 1</u> given the overhead issues in applying too wide a range or upper bound (i.e. significance θ) for collecting time/space optimization satisfactory results.

Nor does Wu_D17 explicitly disclose:

retrieving the data using a first data retriever in case the number of hits is below the first threshold value of the first dimension and the complexity of the Boolean expression is above the second threshold value of the second dimension;

retrieving the data using a second data retriever in case the number of hits is above the first threshold value of the first dimension and the complexity of the Boolean expression is above the second threshold value of the second dimension;

retrieve retrieving the data using a third data retriever_in case the number of hits is below the first threshold value of the first dimension and the complexity of the Boolean expression is below the second threshold value of the second dimension; and

retrieving the data using a fourth data retriever_in case the number of hits is above the first threshold value of the first dimension and the complexity of the Boolean expression is below the second threshold value of the second dimension.

The purpose of fulfilling a query is to retrieve data based on predicated requirement including the boolean expression requirement involving the upper and lower bounds range evaluation (Boolean expression - sec 4.1, 4.2.2, 4.3 pg. 86-116 – Note: AND, OR operators using in relational operations and queries reads on boolean expression and inequalities operators – see Appendix F, pg. 213); and since predicated expressions with inequalities operators include EQU, LT, GT, LEQ, GEQ – a concept inherent in boolean Algebra such as used in relational data warehouse query language by Wu_D17 - the comparing to match a range in terms of comparing to respectively a equal to, a less than, a greater than, a less or equal to, and greater or equal to constraints would be deemed necessary in the queries taught in Wu_D17's algorithms based on analyzing their complexity (Algorithm 2,3 pg. 77-78; Algorithm 4, 6-9, pg. 97-119).

It would have been obvious for one skill in the art at the time the invention was made to implement the analyzing of algorithms for tasks (Aggregation, selection, Group bys, Order bys) and related complexity -- as in the range evaluation dynamic approach by Wu_D17 -- so that

data or hits retrieved in applying alternative query runs based on a given complexity and chosen (sec 4.3.2, pg. 115-116) are compared with respect to the and the complexity observed in using one dimension or another, where the comparing implement the inequalities (equal to, a less than, a greater than, a less or equal to, and greater or equal) evaluations in order to find out if the number of hits and associated with a dimension are compared to a corresponding hits results and associated with a second dimension to evaluate inequality matching as set forth in (i) (ii) (iii) (iv) because these comparing cases respectively implicate the obvious use of combination (inequalities LT+GT, GT + GT, LT+LT, GT+LT) evaluation deemed covering the result in and outside a range covered by a , which Wu_D17 intends to improve as set forth in the range-evaluation incremental approach as set forth in claim 1, for the same benefits mentioned therein, which fall under the optimization of queries purported in Wu_D17's bitmap based static and dynamic selection approach (e.g. to retrieve data warehouse data).

As per claim 17, Wu_D17 discloses a system comprising:

a memory to store variables for a first threshold value for a first parameter (refer to claim 1)and at least a second threshold value for at least a second parameter(refer to claim 1), the first parameter and the second parameter influencing the performance of the software application(refer to claim 1) with regards to a specific task(refer to claim 1), the first threshold value separating a first value range of the first parameter into two intervals of a first dimension(refer to claim 1) and the second threshold value separating a second value range of the second parameter into two intervals of a second dimension(refer to claim 1), and

a threshold evaluator, having one or more processors, for comparing to compare the first threshold value to a corresponding current value of the first parameter (refer to claim 1) and the

second threshold value to a corresponding current value of the second parameter (refer to claim 1), the interval of the first dimension and the interval of the second dimension(refer to rationale in claim 1 – see USC 112 Rejection) including the corresponding current parameter value of the first dimension and the interval of the second dimension (refer to claim 1) including the corresponding current parameter value of the second dimension (refer to rationale in claim 1) define an intersection[sic], the intersection (refer to USC 112, first Rejection, refer to Claim Objection) being used by allowing the software application to select an algorithm assigned to the intersection from the plurality of algorithms for performing the specific task in accordance with the result of comparison (refer to rationale of claim 1; Appendix C.2 see $0<s/t< \theta$; $\theta \leq s/t \leq 1-\theta$; $1-\theta <s/t <1$ - C.2 pg. 201-202).

Wu_D17 does not explicitly disclose the first parameter and the second parameter values having initial values being set by running test cases for a plurality of algorithms for performing the specific task. Wu_D17 discloses group serving as input into test scenario for which response time Os) and processing time (r) over a time t is obtained from running groupings effectuated via a SUM vector task (see para 0112-0113); the obtained results in terms of s, r evaluating the optimized state of the algorithm used or sub-cases (Fig. 4.17, 4.18, pg. 115) to permit selection of the proper scenario using a recalculation of a threshold that define the constraints for the parameters s and r. Based on the use of variables in the algorithm using the grouping to effectuate Bitmap vectorizing as Sum of database elements (pg. 113-114) as in Wu_D17's approach, it would have been obvious for one skill in the art at the time the invention was made to implement parameters s, r, and t such that at the start of the algorithm the parameters are initialized; and one would be motivated to do so because each set of results obtained per run

yield a different s, r value representing the performance of the run instance; that is, initialized values being changed over time during the algorithmic steps of vector adding would serve as a real indicator about how each test run has performed in the scope of affecting its own set of parameters (e.g. s, r, t) , such that the changed state thereof (from their initial respective values) at the end of the run yielding a basis for one to evaluate on the acceptability of the scenario or a threshold (e.g. Wu_D17: pg.116; Appendix C.2).

As per claim 18, Wu_D17 discloses: a threshold calculator to recalculate at least one of the threshold values if a further algorithm of the plurality of algorithms performs better in the intersection including the current parameter values of the first and the second dimension, wherein the recalculation is performed so that the further algorithm is automatically selected in the intersection defined by the at least one recalculated threshold value (refer to claim 2).

As per claim 23, Wu_D17 discloses system of claim 19, wherein each threshold value corresponds to a break-even point where two neighbouring algorithms have the same performance with respect to the corresponding dimension (refer to claim 7).

As per claim 24, Wu_D17 discloses a non-transitory machine-readable medium having instructions embodied thereon that when executed by one or more processors, cause the one or more processors to perform a method, the method comprising:

calculating a first threshold value for a first parameter and a second threshold value for a second parameter(refer to claim 1), the first parameter and the second parameter influencing the performance of a software application with regards to a specific task (refer to claim 1),

the first threshold value separating a first value range of the first parameter into two intervals of a first dimension (refer to claim 1) and

the second threshold value separating a second value range of the second parameter into at least two intervals of a second dimension(refer to claim 1);

comparing the first threshold value to a corresponding current value of the first parameter (refer to claim 1), and the second threshold value to a corresponding current value of the second parameter (refer to claim 1); and

selecting, using one or more processors, an algorithm from a plurality of algorithms for performing the task in accordance with the result of the comparing step (refer to claim 1),

Wu_D17 does not explicitly disclose selecting, in accordance with the comparing step, the selected algorithm assigned to an intersection of the interval of the first dimension that includes the corresponding current parameter value of the first dimension and the interval of the second dimension that includes the corresponding current parameter value of the second dimension.

However, the above has been addressed in claim 1.

Allowable subject matter

8. The subject matter contained in claims 11-15 contains allowable subject matter. That is, the scenarios recited as (i) four (threshold/complexity)-based ranges (claims 12-15) regarding the process of retrieving number hits with respect to first threshold, and complexity of the Boolean expression with respect to the second threshold , which are expressed as inequalities defining range variants in support for (ii) the comparing step (see claim 10; i.e. comparing number of hits, comparing complexity of Boolean), such that the variant scenarios are performed using (iii) techniques such as <u>flag instances, bitmaps, and/or LEAN combined with one of the former techniques</u>; along with (iv) the dynamically measuring first and second threshold based

on the measuring of time consumption by a retriever (claim 11) are identified as containing allowable subject matter; such that (i) (ii) (iii) and (iv) would be allowable if these are properly integrated (emphasis added) in the independent claim 1.

Response to Arguments

9. Applicant's arguments filed 2/24/2011 have been fully considered but they are not persuasive. Following are the Examiner's observation in regard thereto.

(A) Applicants have submitted that what was cited as "discrete elements" in Wu by the Examiner amounts to idiomatic terms suggestive of hindsight use, which cannot show how individual "elements" as selected shows a difference that would have been obvious (Appl. Rmrks pg. 12). The cited portions being reproduced is identified as having nothing to do with the prongs actually effectuated in the 103 rationale; the raising of hindsight cannot be seen as prima facie case of rebut so to nearly being able render non-obvious the feature being addressed in the 103 rejection of claim 1.

(B) Applicants have submitted cust_ID and dimension table are not the related to parameters that influence performance of a software … to a specific task" hence hindsight reconstruction and the evaluation based on not considering the claim as a whole have been used (Appl. Rmrks pg.14). The tables as shown (Appl. Rmrks pg. 13) do not reflect the very portions being cited to address (i) "performance of a software" and (ii) 'specific task" respectively. Nor the raising of hindsight has any effect on a rejection of a feature – such as (i) or (ii) -- for which no obviousness rationale has been necessitated. The argument is deemed non-persuasive

(C) The arguments regarding the amended language in claim 1 (Appl. Rmrks pg. 14 bottom to pg. 18) would be deemed moot in view of the current state of the rejection.

In all, most of the arguments are deemed **either** not sufficiently factual to overcome a corresponding state of a rejection (e.g. raising hindsight in addressing a non-103 type of mapping) **or** moot in view of the patentability state of a amended language, which was not presented in a previous Office Action. The claims as amended will stand rejected as set forth in the Office Action.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (571) 272-3735. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lewis Bullock can be reached on (571)272-3759.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3735 (for non-official correspondence - please consult Examiner before using) or 571-273-8300 (for official correspondence) or redirected to customer service at 571-272-3609.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tuan A Vu/

Primary Examiner, Art Unit 2193

March 20, 2011